Gr. 4 – Unit 9 Penny Jars and Plant Growth Post

Name: _____ **Date:** _____

Class: _____

Part I: Test items 1-10 are multiple choice questions. Read each question carefully and choose the one best answer.

1. Bridgett's mother recorded Bridgett's height on each birthday.
   Which is the BEST way for Bridgett to show this information?

   A) line graph

   B) tally chart

   C) line plot

   D) circle graph

2. Bob is buying yogurt for his class.
   Which expression could he use to determine how many yogurts are in 2 packages?

Packages	# of Yogurts
1	8
2	?
3	24
4	32
5	40

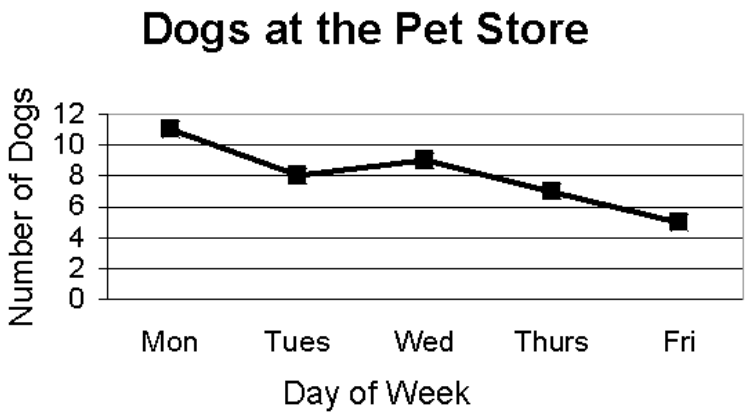
   A) 8 + 2

   B) 8 + 2 + 2

   C) 1 x 8

   D) 2 x 8

3. About how many fewer dogs did the store sell on Friday than on Tuesday?



A) 6 dogs

B) 5 dogs

C) 4 dogs

D) 3 dogs

4. Which of the following could be the rule for the input-output table shown below?

Input (*A*)	Output (*B*)
7	14
12	19
20	27

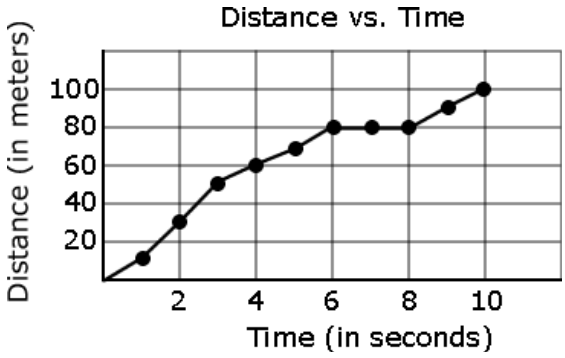
A) $A \times 2 = B$

B) $A + 7 = B$

C) $A \times 5 = B$

D) $A + 8 = B$

5. For how long does it appear the car was stopped?



A) 1 second

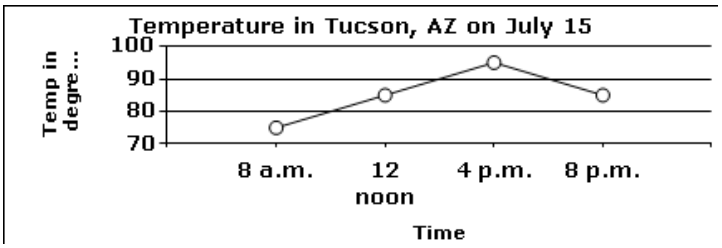
B) 2 seconds

C) 3 seconds

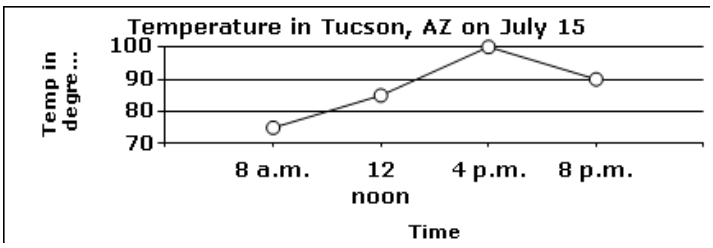
D) 6 seconds

6. On July 15, it was 75°F at 8 a.m., 90°F at 12 noon, 100°F at 4 p.m., and 85°F at 8 p.m. Which graph shows this data?

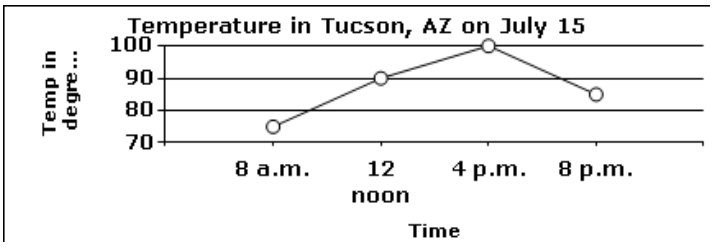
A)



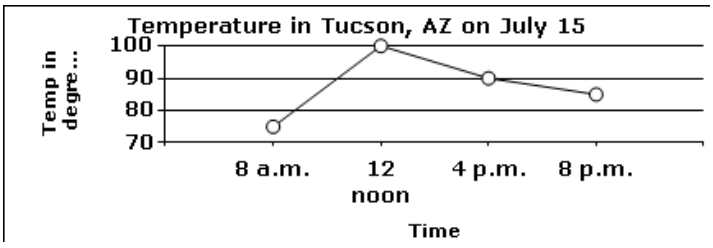
B)



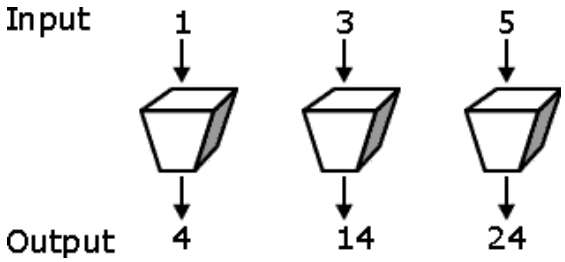
C)



D)



7. The number machine shown below uses a rule to change each number that is put into it to a different number. The same rule is used every time.
Which of the following could be the rule used by this number machine?



A) Add 3

B) Add 10

C) Multiply by 5, then subtract 1

D) Multiply by 10, then subtract 6.

8. Sandy planted a seed and measured the plant's growth every week for one month. The plant grew 5 cm each week. Which table could she have created to display the data?

A)

Week	5	10	15	20
Plant Height (in cm)	1	2	3	4

B)

Plant Height (in cm)	5	10	15	20
Week	1	2	3	4

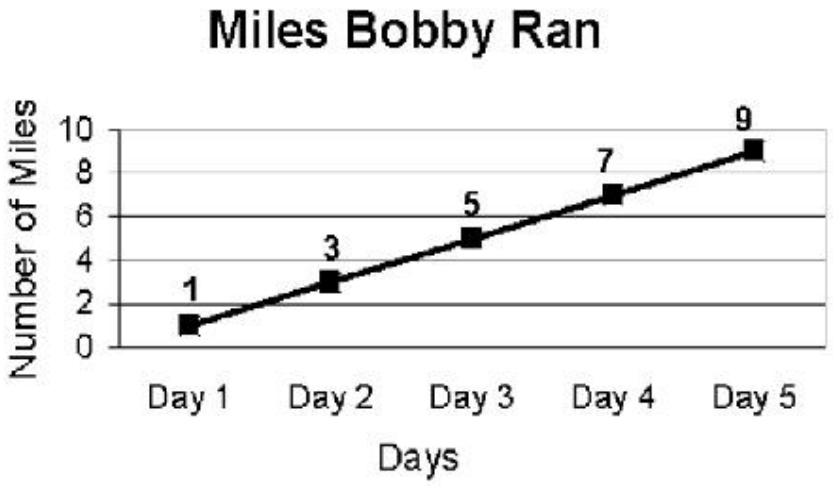
C)

Week	5	10	15	20
Plant Height (in cm)	0	1	2	3

D)

Plant Height (in cm)	5	10	15	20
Week	0	1	2	3

9. Which table matches the data shown in the graph below?



A)

Day	Miles
1	0
2	2
3	4
4	6
5	8

C)

Day	Miles
1	1
2	3
3	5
4	7
5	9

B)

Day	Miles
1	1
3	3
5	5
7	7
9	9

D)

Day	Miles
0	1
2	2
4	3
6	4
8	5

10. Bobby is saving pennies to buy a new book. He is making the table shown below to represent how many pennies he will save by the end of the week.
What sentence BEST describes Bobby's saving pattern?

Days	Total Number of Pennies
Start with	6
1	22
2	38
3	54
4	70
5	86
6	102
7	118

A) Bobby saves 6 pennies each day.

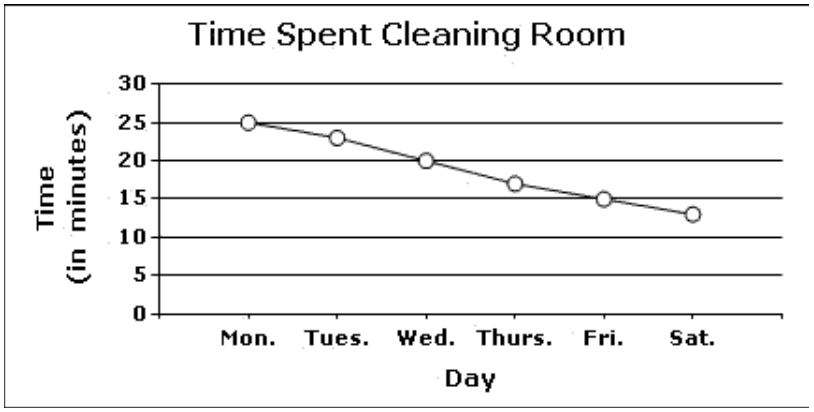
B) Bobby saves 16 pennies each day.

C) Bobby started with 6 pennies and saves 16 pennies each day.

D) Bobby started with 6 pennies and saves 22 pennies each day.

Part II: Test items 11 and 12 are short answer questions. Write your answer in the space provided.

11. If the pattern continues, about how much time will Chris spend cleaning his room on Sunday?



11.

12. About how much more money did the store make in 2007 than in 2006?

12.

Part III: Test Item 13 is an open response question.
***BE SURE TO ANSWER AND LABEL ALL PARTS OF THE QUESTION.**
***Show all your work (diagrams, tables, or computations) on the Answer Sheet.**
***If you do the work in your head, explain in writing how you did the work.**

13. Lee wrote the number sentence shown below to represent the rule for his input-output table.

input output
↓ ↓
$n + 3 = p$

a. Copy Lee's table below into your Student Answer Booklet. Use Lee's number sentence to complete the table.

Lee's Table

Input	n	1	2	5	10	12
Output	p					

b. Lee's friend Maya wrote the input-output table below.

Maya's Table

Input	n	5	6	8	12	21
Output	p	3	4	6	10	19

Write a number sentence to represent the rule for Maya's table. Use n for the input and p for the output.

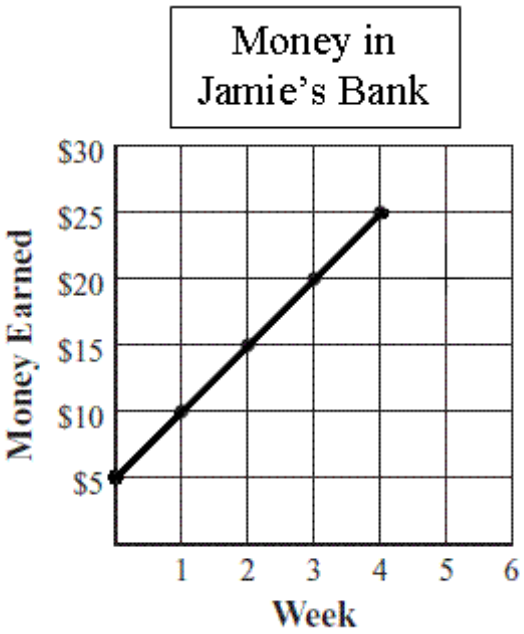
c. A new input-output table is shown below.

Input	n	1	2	5	7	
Output	p	4		20	28	36

What are the missing numbers that complete the input-output table?
Show or explain how you got **each** of your answers.

Part III: Test item 14 is an open response question.
***BE SURE TO ANSWER AND LABEL ALL PARTS OF THE QUESTION.**
***Show all your work (diagrams, tables, or computations) on the Answer Sheet.**
***If you do the work in your head, explain in writing how you did the work.**

14. Jamie is shoveling driveways to earn money. He made the line graph below to show how much money is in his bank.



a. How much money did Jamie have in his bank before he started shoveling driveways? Show or explain how you got your answer.

b. Create a table that shows how much money is in Jamie's bank at the end of 4 weeks.

c. Write an arithmetic expression that shows how much money will be in Jamie's bank after 10 weeks if the pattern continues. Show or explain your thinking.